

WHAT IS CLAIMED IS:

1. A method for inducing an anti-tumor response in a mammalian patient suffering from a tumor comprising administering to said patient a composition comprising a therapeutically effective amount of a tumor cell or tumor cell extract that is:

- (i) conjugated to a hapten;
 (ii) of the same tumor type as the patient's tumor;
 (iii) not allogeneic to said patient, and
 (iv) incapable of growing in the body of the patient after

injection; and
 repeating said administration at weekly intervals.

2. The method of claim 1, wherein said composition is administered for at least three times.

3. The method of claim 1, wherein said composition is administered for at least six times.

4. The method of claim 1 further comprising administering a therapeutically effective amount of cyclophosphamide prior to administration of said composition.

5. The method of claim 4, wherein cyclophosphamide is administered only prior to the first administration of said composition.

6. The method of claim 4 wherein said therapeutically effective amount of cyclophosphamide comprises administering a dose of about 300 mg/M² of cyclophosphamide.

7. The method of claim 1 wherein said tumor cell or extract is selected from the group consisting of melanoma, lung, colon, breast, kidney, prostate,

SS

3 ~~ovarian and leukemia tumor cell or extract.~~

1 ~~6/8.~~ The method of claim ~~7~~⁵, wherein said tumor cell or extract is a
2 melanoma tumor cell or extract.

1 ~~9.~~ The method of claim 1 wherein said hapten is selected from the
2 group consisting of dinitrophenyl, trinitrophenyl, N-iodoacetyl-N'-(5-sulfonic 1-naphthyl)
3 ethylene diamine, trinitrobenzenesulfonic acid, fluorescein isothiocyanate, arsenic acid
4 benzene isothiocyanate, trinitrobenzenesulfonic acid, sulfanilic acid, arsanilic acid,
5 dinitrobenzene-S-mustard and combinations thereof.

1 ~~10.~~ The method of claim ~~9~~⁸ wherein said hapten is dinitrophenyl.

1 11. The method of claim ~~1~~¹⁰ wherein said composition is administered
2 with an adjuvant.

1 ~~12.~~ The method of claim 11 wherein said adjuvant is selected from the
2 group consisting of *Bacillus Calmette-Guerin*, QS-21, detoxified endotoxin and a
3 cytokine.

1 ~~13.~~ The method of claim 1 further comprising sensitizing the patient
2 with a therapeutically effective amount of the hapten prior to administering said
3 composition.

1 14. The method of claim 1 wherein said mammal is not sensitized to
2 said hapten prior to administration of said composition.

1 15. The method of claim 1 wherein said mammal is a human.

1 ~~16.~~ The method of claim 1 wherein said composition comprises a
2 maximum of about 7.5×10^6 tumor cells or c.e. extract per dose.

Sub
17. The method of claim 1 wherein said anti-tumor response is at least one of the following: tumor necrosis, tumor regression, tumor inflammation, tumor infiltration by activated T lymphocytes, stable disease and prolongation of patient survival.

18. A composition for inducing an anti-tumor response in a mammalian patient suffering from a tumor comprising a therapeutically effective amount of a tumor cell or tumor cell extract that is:

- And B4
- (i) conjugated to a hapten;
 - (ii) of the same tumor type as the patient's tumor;
 - (iii) not allogeneic to said patient, and
 - (iv) incapable of growing in the body of the patient after

injection;

said therapeutically effective amount of a tumor cell or extract being a maximum of about 7.5×10^6 cells or c.e. extract per dose.

19. The composition of claim 18 wherein said tumor cell or extract is selected from the group consisting of melanoma, lung, colon, breast, kidney, prostate, ovarian and leukemia tumor cell or extract.

20. The composition of claim 18 wherein said hapten is selected from the group consisting of dinitrophenyl, trinitrophenyl, N-iodoacetyl-N'-(5-sulfonic 1-naphthyl) ethylene diamine, trinitrobenzenesulfonic acid, fluorescein isothiocyanate, arsenic acid benzene isothiocyanate, trinitrobenzenesulfonic acid, sulfanilic acid, arsanilic acid, dinitrobenzene-S-mustard and combinations thereof.

21. The composition of claim 20 wherein said hapten is dinitrophenyl.

22. The composition of claim 18 further comprising an adjuvant.

23. The composition of claim 22 wherein said adjuvant is selected from the group consisting of *Bacillus Calmette-Guerin*, QS-21, detoxified endotoxin and a cytokine.

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[Signature]